Product Datasheet

2-port Gigabit Industrial Ethernet Switch

(ONV-IPS3021F)

OVERVIEW

The ONV-IPS3021F is a Gigabit industrial Ethernet fiber switch independently developed by ONV. It has 1*10/100/1000Base-T adaptive RJ45 port and 1*1.25G SC fiber port, and each port can support full line-rate forwarding.

The ONV-IPS3021F has excellent industrial field environment adaptability (mechanical stability, climate adaptability, electromagnetic environment adaptability, etc.). It is suitable for industrial scenes such as intelligent transportation, rail transit, power industry, mining, petroleum, shipping, metallurgy, and green energy construction to form a cost-effective, stable, and reliable communication network. Unmanaged mode, plug and play, no configuration, easy to use.

FEATURE

■ **Gigabit access**

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◇   Support non-blocking wire-speed forwarding.

◇   Support full-duplex based on IEEE 802.3x and half-duplex based on Backpressure.

◇   Support Gigabit RJ45 port and 1.25G SC fiber port combination to meet networking needs in various scenarios.

■   **Stable and reliable**

◇   CCC, CE, FCC, RoHS.

◇   The user-friendly panel can show the device status through the LED indicator of PWR and Link.

◇   Low power consumption, aluminum alloy housing, and excellent heat dissipation to ensure the stable operation of the switch.
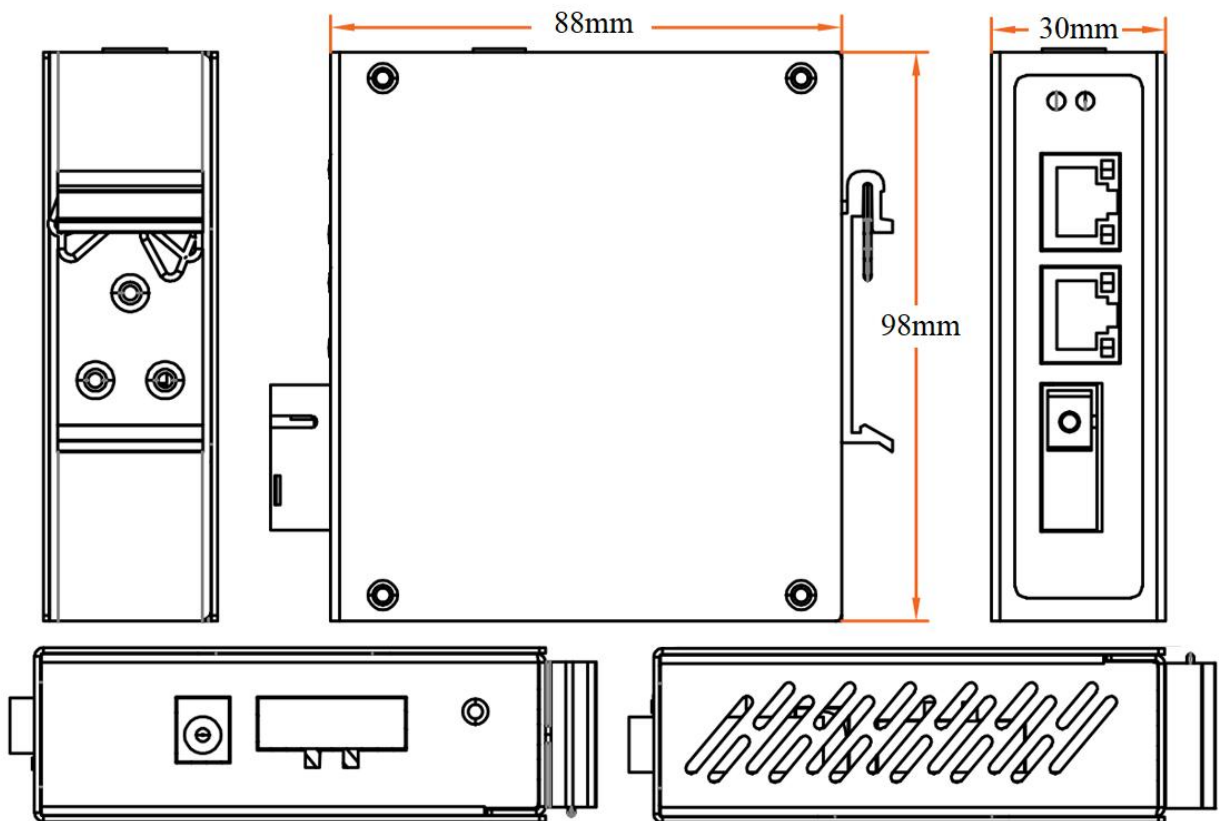
TECHNICAL SPECIFICATION

Model	ONV-IPS3021F
Interface Characteristics	
Fixed Port	1*1.25G SC fiber port (Data) 1*10/100/1000Base-T RJ45 port (Data)
Ethernet Port	Port 1 can support 10/100/1000Base-T(X) auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP(≤100 meters) 100BASE-TX: Cat5 or later UTP(≤100 meters) 1000BASE-T: Cat5e or later UTP(≤100 meters)
Optical Fiber Port	Optical module is single-mode dual fiber 20km, SC port
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m, 1310nm/ 0-2km, Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3x
Forwarding Mode	Store and Forward (Full Wire Speed)

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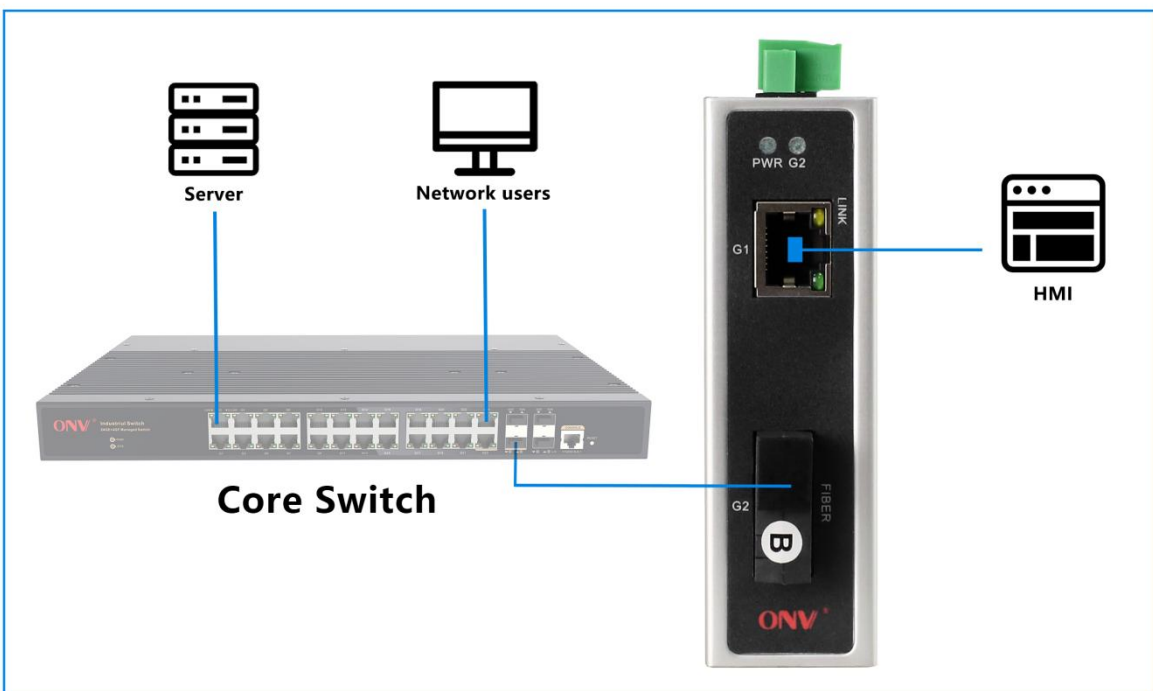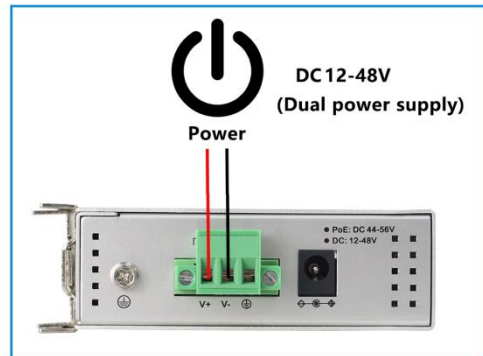|	
Switching Capacity	12Gbps (non-blocking)
Forwarding Rate@64byte	2.98Mpps
MAC	2K
Buffer Memory	2M
Jumbo Frame	9216bytes
LED Indicator	Power: PWR (Green), Network: Link (Yellow), Fiber port: G2 (Green)
Power Supply	
Power Consumption	Standby<3W, Full load<5W
Input Voltage/ Interface	DC12-48V, 3P industrial terminal and DC power jack, support anti-reverse protection
Power Supply	No, optional 12V/24W or 24V/24W industrial power supply
Physical Parameter	
Operation Temp/ Humidity	-40~+75°C, 5%~90% RH Non condensing
Storage Temp/ Humidity	-40~+85°C, 5%~95% RH Non condensing
Dimension (L*W*H)	98*88*30mm
Net /Gross Weight	0.25kg/ 0.35kg
Installation	Desktop, 35mm DIN Rail
Certification & Warranty	
Lightning Protection	Protection level: IP30 Lightning protection: 6KV 8/20us IEC61000-4-3 (RS):10V/m (80~1000MHz) FCC Part 15/CISPR22 (EN55022): Class A IEC61000-6-2 (Common Industrial Standard) IEC61000-4-9 (Pulsed magnet field): 1000A/m IEC61000-4-10 (Damped oscillation): 30A/m 1MHz IEC61000-4-12/18 (Shockwave): CM2.5kV, DM1kV IEC61000-4-4(EFT): Power cable: ±4kV, data cable: ±2kV IEC61000-4-16 (Common-mode transmission): 30V, 300V, 1s IEC61000-4-2 (ESD): ±8kV contact discharge, ±15kV air discharge

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4	IEC61000-4-6 (Radio frequency transmission): 10V(150kHz~80MHz)
	IEC61000-4-8 (Power frequency magnetic field): 100A/m, 1000A/m, 1s-3s
	IEC61000-4-5 (Surge): Power cable: CM±4kV/ DM±2kV, data cable: ±4kV
Mechanical Properties	IEC60068-2-6 (Anti Vibration), IEC60068-2-32 (Free Fall), IEC60068-2-27 (Anti Shock)
Certification	CE mark, commercial, CE/LVD EN62368-1, FCC Part 15 Class A, RoHS
Warranty	5 years, lifelong maintenance.

DIMENSION

APPLICATION

ORDERING INFORMATION

Model	Description	Recommended Power Supply
ONV-IPS3021F	Unmanaged industrial Ethernet switch with 1*10/100/1000M RJ45 port and 1*1.25G uplink SC fiber port (1310nm/20km single-mode dual fiber optical module). It can support dual DC power input and DIN Rail mounting.	24W
ONV-IPS3021F-A	Unmanaged industrial Ethernet switch with	24W

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	1*10/100/1000M RJ45 port and 1*1.25G uplink SC fiber port (1310nm/20km single-mode single fiber optical module). It can support dual DC power input and DIN Rail mounting.	
ONV-IPS3021F-B	Unmanaged industrial Ethernet switch with 1*10/100/1000M RJ45 port and 1*1.25G uplink SC fiber port (1550nm/20km single-mode single fiber optical module). It can support dual DC power input and DIN Rail mounting.	24W

Note: The power supply is not included and needs to be purchased.

PACKING LIST

	Content	Qty	Unit
Packing List	2-port Gigabit industrial Ethernet switch	1	Set
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	1	PC

POWER SUPPLY

Product	Model	Description	Unit
24W DIN Rail Industrial Power Supply	GWS-DP24-12	DIN Rail 24W single set of output power supply Input Voltage: AC100V~240V 50-60H, 0.35A Output Voltage: DC12V, 2.0A Operation Temperature: -40℃ to +70℃	PC
24W DIN Rail Industrial Power Supply	GWS-DP24-24	DIN Rail 24W single set of output power supply Input Voltage: AC100V~240V 50-60H, 0.35A Output Voltage: DC24V, 1.0A Operation Temperature: -40℃ to +70℃	PC

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